

WHAT IS CLAIMED IS:

1. A communication device capable of enabling a user to select whether they want to use voice communications, text communications or voice/text communications to
5 communicate with a person/automated phone service using a remote communication device.

2. The communication device of Claim 1, wherein said remote communication device is a voice-only-capable
10 communication device.

3. The communication device of Claim 1, wherein said remote communication device is a text-only-capable
15 communication device.

4. The communication device of Claim 1, wherein said remote communication device is a voice-and-text capable
communication device.

20 5. The communication device of Claim 1, wherein said user can change back-and-forth between voice, text and voice/text communications during a conversation with the person/automated phone service using the remote
communication device.

25

6. The communication device of Claim 1, wherein said user can listen to voice communications received from the remote communication device and at the same time view a text version of the voice communications received from the remote communication device.

7. The communication device of Claim 1, wherein said user can view text communications received from the remote communication device and at the same time hear a voice version of the text communications received from the remote communication device.

8. The communication device of Claim 1, further comprising a display on which the user can view and input text communications.

9. The communication device of Claim 8, wherein said display is a touch-screen display or a stylus-activated display.

10. A communication device comprising:
a selector for enabling a user to select and activate one of the following:

a speech module for enabling the user to use voice communications to interact with a voice-capable remote communication device;

a text/speech module for enabling the user to use voice communications to interact with a text-capable remote communication device;

5 a text module for enabling the user to use text communications to interact with a text-capable remote communication device;

a speech/text module for enabling the user to use text communications to interact with a voice-capable remote communication device;

10 a speech/text module and a speech module for enabling the user to use voice/text communications to interact with a voice-capable remote communication device; or

15 a text/speech module and a text module for enabling the user to use voice/text communications to interact with a text-capable remote communication device.

20 11. The communication device of Claim 10, wherein said user can also use the selector to select and activate a speech module and a text module so that the user can use voice/text communications to interact with a remote communication device configured like said communication device.

25

12. The communication device of Claim 10, wherein when said speech module is selected and activated then the user can use voice communications to interact with the voice-capable remote communication device by:

5 receiving voice communications from a speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device; and

10 outputting voice communications into said speech input/output module which are processed by said speech module and then transmitted as voice communications to the voice-capable remote communication device.

13. The communication device of Claim 10, wherein 15 when said text/speech module is selected and activated then the user can use voice communications to interact with the text-capable remote communication device by:

20 receiving voice communications from a speech input/output module which have been processed by said text/speech module and converted into the received voice communications from text communications transmitted from the text-capable remote communication device; and

25 outputting voice communications into said speech input/output module which are processed by said text/speech module and converted into text communications that are transmitted to the text-capable remote communication device.

14. The communication device of Claim 10, wherein when said text module is selected and activated then the user can use text communications to interact with the text-capable remote communication device by:

5 receiving text communications from a text input/output module which have been processed by said text module after being received as text communications from the text-capable remote communication device; and

10 outputting text communications into said text input/output module which are processed by said text module and transmitted as text communications to the text-capable remote communication device.

15 15. The communication device of Claim 10, wherein when said speech/text module is selected and activated then the user can use text communications to interact with the voice-capable remote communication device by:

20 receiving text communications from a text input/output module which have been processed by said speech/text module and converted into the received text communications from voice communications transmitted from the voice-capable remote communication device; and

25 outputting text communications into said text input/output module which are processed by said speech/text module and converted into voice communications that are transmitted to the voice-capable remote communication device.

16. The communication device of Claim 10, wherein when said speech/text module and said speech module are selected and activated then the user can use voice/text communications to interact with the voice-capable remote communication device by:

receiving voice communications from a speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device and at the same time receiving text communications from a text input/output module which have been processed by said speech/text module and converted into the received text communications from the voice communications transmitted from the voice-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said speech module and then transmitted as voice communications to the voice-capable remote communication device or outputting text communications into said text input/output module which are processed by said speech/text module and converted into voice communications that are transmitted to the voice-capable remote communication device.

17. The communication device of Claim 10, wherein when said text/speech module and said text module are selected and activated then the user can use voice/text communications to interact with the text-capable remote communication device by:

receiving text communications from a text input/output module which have been processed by said text module after being received as text communications from the text-capable remote communication device and at the same time receiving
5 voice communications from a speech input/output module which have been processed by said text/speech module and converted into the received voice communications from text communications transmitted from the text-capable remote communication device; and

10 outputting text communications into said text input/output module which are processed by said text module and transmitted as text communications to the text-capable remote communication device or outputting voice
15 communications into said speech input/output module which are processed by said text/speech module and converted into text communications that are transmitted to the text-capable remote communication device.

18. The communication device of Claim 10, further
20 comprising a display on which the user can view and input text communications.

19. The communication device of Claim 18, wherein
25 said display is a touch-screen display or a stylus-activated display.

20. The communication device of Claim 19, wherein said text communications are in a form of a menu capable of being folded and unfolded in a display area of said display.

5

21. The communication device of Claim 10, wherein said text communications are instant messages.

10

22. The communication device of Claim 10, wherein said communication device is:

a land-line phone;
a graphical proxy terminal
a mobile phone;
a personal computer;
15 a personal digital assistant;
a teletype/teleprinter (TTY); or
a telecommunication device for a deaf user (TDD).

20

23. The communication device of Claim 10, wherein said user can use speech commands to have a specific task performed by said communication device.

25

24. A method for using a communication device, said method comprising the step of:

enabling a user to select whether they want to use voice communications, text communications or voice/text communications to communicate with a person/automated phone

service using a remote communication device by letting the user select and activate one of the following:

5 a speech module for enabling the user to use voice communications to interact with a voice-capable remote communication device;

 a text/speech module for enabling the user to use voice communications to interact with a text-capable remote communication device;

10 a text module for enabling the user to use text communications to interact with a text-capable remote communication device;

 a speech/text module for enabling the user to use text communications to interact with a voice-capable remote communication device;

15 a speech/text module and a speech module for enabling the user to use voice/text communications to interact with a voice-capable remote communication device; or

20 a text/speech module and a text module for enabling the user to use voice/text communications to interact with a text-capable remote communication device.

25 25. The method of Claim 24, wherein said user can also use the selector to select and activate a speech module and a text module so that the user can use voice/text communications to interact with the remote communication device.

26. The method of Claim 24, wherein when said speech module is selected and activated then the user can use voice communications to interact with the voice-capable remote communication device by:

receiving voice communications from a speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said speech module and then transmitted as voice communications to the voice-capable remote communication device.

27. The method of Claim 24, wherein when said text/speech module is selected and activated then the user can use voice communications to interact with the text-capable remote communication device by:

receiving voice communications from a speech input/output module which have been processed by said text/speech module and converted into the received voice communications from text communications transmitted from the text-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said text/speech module and converted into text communications that are transmitted to the text-capable remote communication device.

28. The method of Claim 24, wherein when said text module is selected and activated then the user can use text communications to interact with the text-capable remote communication device by:

receiving text communications from a text input/output module which have been processed by said text module after being received as text communications from the text-capable remote communication device; and

outputting text communications into said text input/output module which are processed by said text module and transmitted as text communications to the text-capable remote communication device.

29. The method of Claim 24, wherein when said speech/text module is selected and activated then the user can use text communications to interact with the voice-capable remote communication device by:

receiving text communications from a text input/output module which have been processed by said speech/text module and converted into the received text communications from voice communications transmitted from the voice-capable remote communication device; and

outputting text communications into said text input/output module which are processed by said speech/text module and converted into voice communications that are transmitted to the voice-capable remote communication device.

30. The method of Claim 24, wherein when said speech/text module and said speech module are selected and activated then the user can use voice/text communications to interact with the voice-capable remote communication device by:

receiving voice communications from a speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device and at the same time receiving text communications from a text input/output module which have been processed by said speech/text module and converted into the received text communications from the voice communications transmitted from the voice-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said speech module and then transmitted as voice communications to the voice-capable remote communication device or outputting text communications into said text input/output module which are processed by said speech/text module and converted into voice communications that are transmitted to the voice-capable remote communication device.

31. The method of Claim 24, wherein when said text/speech module and said text module are selected and activated then the user can use voice/text communications

to interact with the text-capable remote communication device by:

receiving text communications from a text input/output module which have been processed by said text module after
5 being received as text communications from the text-capable remote communication device and at the same time receiving voice communications from a speech input/output module which have been processed by said text/speech module and converted into the received voice communications from text
10 communications transmitted from the text-capable remote communication device; and

outputting text communications into said text input/output module which are processed by said text module and transmitted as text communications to the text-capable
15 remote communication device or outputting voice communications into said speech input/output module which are processed by said text/speech module and converted into text communications that are transmitted to the text-capable remote communication device.

20

32. The method of Claim 24, wherein said communication device includes a display on which the user can view and input text communications.

25

33. The method of Claim 32, wherein said display is a touch-screen display or a stylus-activated display.

34. The method of Claim 24, wherein said text communications are instant messages.

35. The method of Claim 24, wherein said
5 communication device is:

a land-line phone;
a graphical proxy terminal
a mobile phone;
a personal computer;
10 a personal digital assistant;
a teletype/teleprinter (TTY); or
a telecommunication device for a deaf user (TDD).

36. A method for making a communication device that
15 enables a user to select whether they want to use voice communications, text communications or voice/text communications to communicate with a person/automated phone service using a remote communication device, said method comprising the steps of:

20 installing, within said communication device, a speech module, a text module, a speech/text module, a text/speech module, a speech input/output module and a text input/output module;

installing, within said communication device, a
25 selector that enables a user to select and activate said speech module, said text/speech module, said text module and/or said speech/text module;

wherein when said speech module is selected and activated then the user can use voice communications to interact with the person/automated phone service using a voice-capable remote communication device;

5 wherein when said text/speech module is selected and activated then the user can use voice communications to interact with the person/automated phone service using a text-capable remote communication device;

10 wherein when said text module is selected and activated then the user can use text communications to interact with the person/automated phone service using a text-capable remote communication device;

15 wherein when said speech/text module is selected and activated then the user can use text communications to interact with the person/automated phone service using a voice-capable remote communication device;

20 wherein when said speech/text module and said speech module are selected and activated then the user can use either voice communications or text communications to interact with the person/automated phone service using a voice-capable remote communication device; and

25 wherein when said text/speech module and said text module are selected and activated then the user can use either voice communications or text communications to interact with the person/automated phone service using a text-capable remote communication device.

37. The method of Claim 36, wherein said user can also use the selector to select and activate said speech module and said text module so that the user can use voice/text communications to interact with the person/automated phone service using the remote communication device.

38. The method of Claim 36, wherein when said speech module is selected and activated then the user can use voice communications to interact with the person/automated phone service using the voice-capable remote communication device by:

receiving voice communications from said speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said speech module and then transmitted as voice communications to the voice-capable remote communication device.

39. The method of Claim 36, wherein when said text/speech module is selected and activated then the user can use voice communications to interact with the person/automated phone service using the text-capable remote communication device by:

receiving voice communications from said speech input/output module which have been processed by said

text/speech module and converted into the received voice communications from text communications transmitted from the text-capable remote communication device; and

5 outputting voice communications into said speech input/output module which are processed by said text/speech module and converted into text communications that are transmitted to the text-capable remote communication device.

10 40. The method of Claim 36, wherein when said text module is selected and activated then the user can use text communications to interact with the person/automated phone service using the text-capable remote communication device by:

15 receiving text communications from said text input/output module which have been processed by said text module after being received as text communications from the text-capable remote communication device; and

20 outputting text communications into said text input/output module which are processed by said text module and transmitted as text communications to the text-capable remote communication device.

25 41. The method of Claim 36, wherein when said speech/text module is selected and activated then the user can use text communications to interact with the person/automated phone service using the voice-capable remote communication device by:

receiving text communications from said text input/output module which have been processed by said speech/text module and converted into the received text communications from voice communications transmitted from the voice-capable remote communication device; and

outputting text communications into said text input/output module which are processed by said speech/text module and converted into voice communications that are transmitted to the voice-capable remote communication device.

42. The method of Claim 36, wherein when said speech/text module and said speech module are selected and activated then the user can use either voice communications or text communications to interact with the person/automated phone service using the voice-capable remote communication device by:

receiving voice communications from said speech input/output module that were processed by said speech module after being received as voice communications from the voice-capable remote communication device and at the same time receiving text communications from a text input/output module which have been processed by said speech/text module and converted into the received text communications from the voice communications transmitted from the voice-capable remote communication device; and

outputting voice communications into said speech input/output module which are processed by said speech

module and then transmitted as voice communications to the voice-capable remote communication device or outputting text communications into said text input/output module which are processed by said speech/text module and
5 converted into voice communications that are transmitted to the voice-capable remote communication device.

43. The method of Claim 36, wherein when said text/speech module and said text module are selected and
10 activated then the user can use either voice communications or text communications to interact with the person/automated phone service using the text-capable remote communication device by:

receiving text communications from said text
15 input/output module which have been processed by said text module after being received as text communications from the text-capable remote communication device and at the same time receiving voice communications from a speech input/output module which have been processed by said
20 text/speech module and converted into the received voice communications from text communications transmitted from the text-capable remote communication device; and

outputting text communications into said text
input/output module which are processed by said text module
25 and transmitted as text communications to the text-capable remote communication device or outputting voice communications into said speech input/output module which are processed by said text/speech module and converted into

text communications that are transmitted to the text-capable remote communication device.

5 44. The method of Claim 36, further comprising the step of installing, within the communication device, a display on which the user can view and input text communications.

10 45. The method of Claim 44, wherein said display is a touch-screen display or a stylus-activated display.

 46. A communication device, comprising:
 a speech module for receiving and transmitting audio communication;
15 a speech-to-text conversion module for receiving audio communication, translating the audio communication to text and displaying a text message;
 a text-to-speech conversion module for receiving a text communication, translating the text communication to audio
20 communication and outputting the audio communication; and
 a user operable switch to select multiple modes of operation of the communication device such that speech or text can be outputted or such that speech and text are both concurrently outputted.

25

 47. The communication device of Claim 46, further comprising a display on which the user can view and input text.

48. The communication device of Claim 47, wherein said display is a touch-screen display or a stylus-activated display.

5